

APPLN. FILING DATE: JUNE 10, 1988
TITE PRECOMBINANT IMMUNOGLOBULE
PRECOMBINATE
P

INVENTOR(S): CABILLY ET AL. APPLICATION SERIAL NO: 07/205,419

SHEET 1 of 19

6331415

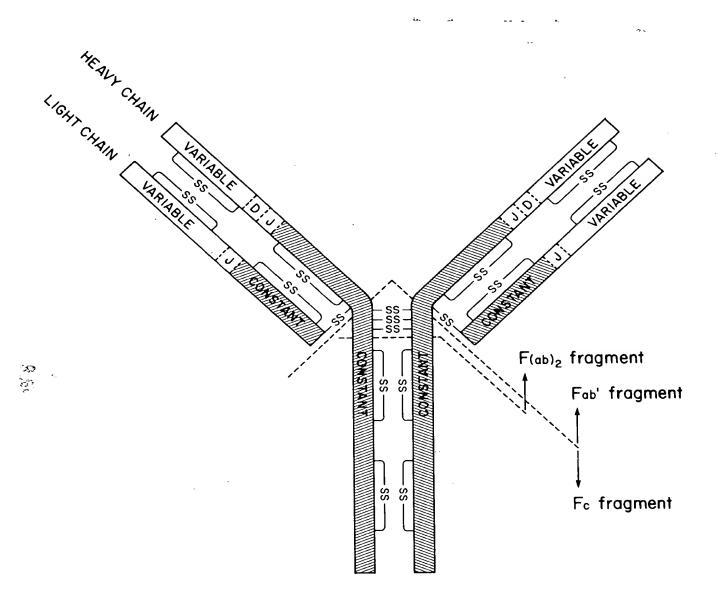


Fig.1.

APPLN. FILING DATE: JUNE 10, 1988
TITE RECOMBINANT IMMUNOGLOBULING PRESENTATIONS

INVENTOR(S): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419

SHEET 2 of 19

GTTGCTGTGG T CAACGACACC A GCCAGTCAGG A CGGTCAGTCC T SAU3A TCCCTGATCG C AGGGACTAGC G	ACAGACC. ACACCCA TGTGGGT TTCACAG	TG TTGAAGGAGA CAAC TCCTCT GEORE GEORE CACGATATGG ACGATATGG ACGATATGG ACGATATGG ACGATATGG ACGATCTG GC ACGATCTG GC ACCCTAGAC CC TCACCTAGAC CC TCACCTAGAC CC	TGTGATG ACACTAC ATAGTTG ATAGTTG CAGATTT GTCTAAA	ACCCAGTCTC TGGGTCAGAG SCTFI SCAFI CATTGGTCC GTGAGGTGG GTGAGAGTGG	ACCCAGTCTC ACAATTCAT TGGTCAGAG TGTTTAAGTA SCRFI AGAACCAGG ACATCTCCT TCTTTGGTCC TGTTAGAGGA CACTCTCACC ATTAGCAATG GTGAGAGTGG TAATCGTTAC	GTCCACATCA CAGGTGTAGT AAACTACTGA TTTGATGACT TGCAGTCTGA ACGTCAGACT	tthiii GTAGGAGACA G CATCCTCTGT C AAATGACCCG T foki sfan TGACTTGGCA G ACTGAACCGT C	ACAATTCAT GTCCACATCA GTAGGAGACA GGGTCAGCAT CACCTGCAAG TGTTTAAGTA CAGGTGTAGT CATCCTCTGT CCCAGTCGTA GTGGACGTTC sfanI ACAATCTCCT AAACTACTGA TTTACTGGGC ATCCACCGG CACACTGGAG TGTTAGAGGA TTTGATGACT AAATGACCCG TAGGTGGGCC GTGTGACCTC fokI sfanI ATTAGCAATG TGCAGTCTGA TGACTTGGCA GATTATTTCT GTCAACAATA TAATCGTTAC ACGTCAGACT ACTGAACCGT CTAATAAGA CAGTTGTTAT	haelli hael GACGTTC . GACGTTC . TGACCTC . TGACATA . TTGTTAT
TAGCGGGTAT Atcgcccata		sau96 avali alul CCTCTCACGT TCGGTGCTGG GACCAAGCTG GGAGAGTGCA AGCCACGACC CTGGTTCGAC	u96 ali alui GACCAAGCTG CTGGTTCGAC	aluI sfaNI GAGCTGAAAC CTCGACTTTG	fnu bbv GGGCTGATGC CCCGACTACG	fnu4HI bbv GC TGCACCAACT CG ACGTGGTTGA	Mboli GTATCCATCT T CATAGGTAGA A foki	hpal hpal bbv bbv bbv bbv bbv bbv bbv bbv bbv bb	hpaI hincII ACTCGTC
TTAACATCTG AATTGTAGAC	mnlI mnlI ddeI G GAGGTGCCTC AGTCGTGTGC C CTCCACGGAG TCAGCACACG	AGTCGTGTGC TCAGC ACG A	xmnI TTCTTGAACA AAGAACTTGT	ACTTCTACCC TGAAGATGGG	XmnI TTCTTGAACA ACTTCTACCC CAAAGACATC AAGAACTTGT TGAAGATGGG GTTTCTGTAG	AATGTCAAGT TTACAGTTCA	mboli GGAAGATTGA T CCTTCTAACT A	mboli GGAAGATTGA TGGCAGTGAA CGACAAAATG CCTTCTAACT ACCGTCACTT GCTGTTTTAC	acyl CAAAATG GTTTTAC

APPROVED БÝ DRAFTSMAN APPLN. FILING DATE: JUNE 10, 1988
TITLE ECOMBINANT IMMUNOGLOBULIN
PREPARATIONS

INVENTOR(S): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419

SHEET 3 of 19

501	dpni hgai GCGTCCTGAA CAGTTGGACT GATCAGGACA GCAAAGACAG CACCTACAGC ATGAGCAGCA CCCTCACGTT GACCAAGGAC GAGTATGAAC GACATAACAG CGCAGGACTT GTCAACCTGA CTAGTCCTGT CGTTCTGTC GTGGATGTCG TACTCGTCGT GGGAGTGCAA CTGGTTCCTG CTCATACTTG CTGTATTGTC
601	mnli haelii hael ctataccigt gaggccactc acaagacatc aacticaccc attgtcaaga gcttcaacag gaatgagtgt tagagacaaa ggtcctgaga cgccaccacc gatatggaca ctccggtgag tgttctgtag ttgaagtggg taacagttct cgaagttgtc cttactcaca atctctgttt ccaggactct gcggtggg
701	alui alui mboli ddel mnli AGCTCCCCAG CTCCATCCTA TCTTCCCTTC TAAGGTCTTG GAGGCTTCCC CACAAGCGAC CTACCACTGT TGCGGTGCTC CAAACCTCCT CCCCACCTCC TCGAGGGGTC GAGGTAGGAT AGAAGGGAAG ATTCCAGAAC CTCCGAAGGG GTGTTCGCTG GATGGTGACA ACGCCACGAG GTTTGGAGGA GGGGTGGAGG
801	mnli mnli mnli TTCTCCTCCT CCTCCCTTTC CTTGGCTTTT ATCATGCTAA TATTTGCAGA AAATATTCAA TAAAGTGAGT CTTTGCACTT GA

nucleotides: 882

Br DRAFTSMAN

APPLN. FILING DATE: JUNE 10, 1988
TITLE ECOMBINANT IMMUNOGLOBULIN
PREPARATIONS :
INVENTOR(S): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419
SH

SHEET 4 of 19

20 ser AGC	50 trp UGG	80 ser ucu	110 asp GAU	140 tyr UAC	170 asp GAC	200 thr ACA	AGACAAAGGUCCUGAGACGCCACCÀCCAGCUCCCAGCUCCAUCCUAUCUUCCCUUCUAA	<u> GUGCUCCAAACCUCCUCCCACCUCCUUCUCCUCCUCCUCCCUUUCCUUGGCUUUUAUCAUGCUAAUAUUUGCAGAAAA.</u>
val GUC	tyr UAC	gln CAG	ala GCU	phe uuc	1ys AAA	his lys CAC AAG	າກວວ:	GCAG
arg AGG	ile AUU	val GUG	arg CGG	asn AAC	ser AGC	his CAC	וכחתם	AUUU
asp GAC] e u C U G	asn AAU	1ys	asn AAC	a s p GAC	thr ACU	CUAU	UAAU
91y 66A	leu leu CUA∵CUG	ser AGC	leu CUG	leu UUG	gln CAG	ala GCC	CAUC	AUGC
val GUA	1 y s A A A	ile AUU	g]u GAG	phe	asp GAU	glu ala GAG GCC	ວດວອ	UAUC
ser UCA	pro	thr Acc	leu CUG	cys UGC	thr ACU	cys UGU	CCCA	ດດດາ
thr ACA	ser ucu	leu CUC	1 y s A A G	va] GUG	trp UGG	tyr thr UAU ACC	ວກວອ	0000
ser UCC	gln CAA	thr ACU	thr ACC	val Guc	ser AGU	tyr UAU	ÀCCA	DOOR
met AUG	gly 66A	phe UUC	91y 666	ser UCA	asn AAC	ser AGC	CACC	ກວວວ
10 phe UUC	40 CCA	70 asp GAU	100 ala GCU	130 ala GCC	160 1eu CUG	190 asn AAC	ACGC	ກວວກ:
1 y s A A A	lys AAA	thr ACA	91y 66U	91y GGU	val GUC	his CAU	UGAG	ວວກວ:
his CAC	g]n CAG	g 1 y G G G	phe UUC	91y 66A	91y 66c	arg CGA	ວວກອ	וחכחנ
ser ucu	gln CAA	ser UCU	thr ACG	ser UCU	asn AAU	glu GAA	AAAG	າວວກ:
gln CAG	tyr UAU	91y GGA	Jeu CUC	thr ACA	gln CAA	glu tyr glu arg GAG UAU GAA CGA	AGAC	CACC
thr ACC	trp UGG	ser AGU	pro	leu UUA	arg CGA	g]u GAG	AM UAG	ວວກ:
met AUG	ala GCC	91y 660	tyr UAU	gln CAG	g]u GAA	a s p G A C	214 cys UGU	วกว
val GUG	ile AUA	thr	91y 666	g]u GAG	ser AGU	ly s A A G	glu GAG	:AAA(
ile AUU	ala GCU	phe UUC	ser AGC	ser AGU	91y 66c	thr Acc	asn AAU	CUCC
asp GAC	ala GCU	arg CGC	tyr UAU	ser ucc	asp GAU	leu UUG	arg AGG	9099
91y GGA	30 91y 66U	60 asp GAU	90 gln CAA	120 pro CCA	150 ile AUU	180 thr ACG	210 asn AAC	9005
val glu GUU GAA	val GUG	pro	gln CAA	pro CCA	1ys AAG	Jeu CUC	phe UUC	ACU6
val GUU	a s p G A U	val GUC	cys UGU	phe	trp UGG	thr Acc	ser AGC	UAC
91y 900	gln CAG	91y GGA	phe UUC	ile AUC	lys AAG	ser AGC	lys AAG	GAC(
ser gly ucu ggu	ser AGU	thr ACU	tyr UAU	ser	val GUC	ser AGC	pro ile val CCC AUU GUC	SAAG(
leu trp leu cug ugg uug	lys ala AAG GCC	his CAC	a s p G A U	thr val Acu GUA	a s n A A U	met AUG	ile AUU	CCA(
trp UGG	1 y s A A G	arg CGG	ala GCA	thr	11e AUC	ser AGC	0 r 0) O N N
	cys UGC	thr	leu UUG	Pro CCA	a s p G A C	ty UAC	ser UCA	GGUCUUGGAGGCUUCCCCACAAGCGACCUACCACUGUUGCG
-9 1eu 00G	thr	ser UCC	asp GAC	ala GCA	lys AAA	thr Acc	thr	ງຄຸກຄຸ
ம	11e AUC	ala GCA	asp GAU	ala GCU	010	ser AGC	ser UCA	0000

UAUUCAAUAAAGUGAGUCUUUGCACUUGA

APPROVED O.G. FIG. CLASS SUBCLASS БÝ DRAFTSMAN

APPLN. FILING DATE: JUNE 10, 1988
TITLE ECOMBINANT IMMUNOGLOBULIN PREPARATIONS

INVENTOR(S): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419

SHEET 5 of 19

TGGT	TCGC	TCCA	TAGT	au3A I PnI ATCT
GATGC	TGGGT	CCATC	TTCGT AAGCA	xholl scrfl sau96 sau3A ecoR11 hae111 dpn1 crgc cccrgGATCT
AG T	TC T	hphI nfI TTC A(TA TA	au96 ae I I GC CC
faNI TGTGA ACACI	CCATG	hfr GCGA1 CGCTA	mnll cctct ggaga	s CACTG GTGAC
cAG GTC	ATG TAC	, AGG	200	ATC
TTGT C AACAG	TAGAT ATCTA	TGTG/ ACACI	CAAGA	TGTCT
sau96 avail mnli TGAACACGGA CCCTCACGA TGAACTTCGG GCTCAGCTTG ATTTACCTTG TCCTTGTTTT AAAAGTTGTC CAGTGTGAAG TGATGCTGGT ACTTGTGCCT GGGGAGTGCT ACTTGAAGCC CGAGTCGAAC TAAATGGAAC AGGAACAAAA TTTTCAACAG GTCACATTC ACTACGACCA	scrFI sau96 mnll bbv mnll hinfl rggagccrgg Aggarcccrg AAACTCTCCT GTGCAGCCTC TGGATTCACT TTCAGTAGAT ATGCCATGTC TTGGGTTCGC ACCTCGGACC TCCCAGGGAC TTTGAGAGGA CACGTCGGAG ACCTAAGTGA AAGTCATCTA TACGGTACAG AACCCAAGCG	hphi Tagttcacac Cttccatcca gacagtgtga agggcgattc accatctcca Atcaagtgtg gaaggtaggt ctgtcacact tcccgctaag tggtagaggt	mnli mnli ddei ddei ddei GC AAATGAGCAG TCTGAGGTCT GAGGACACGG CCATGTATTA CTGTGCAAGA CCCCCTCTTA TTTCGTTAGT CG TTTACTCGTC AGACTCCAGA CTCCTGTGCC GGTACATAAT GACACGTTCT GGGGAGAAT AAAGCAATCA	xholl scrfl scrfl sau96 sau34 au34 sau38 sau38 sau38 sau38 sau38 corli ddel ddel ddel ddel ddel ddel ddel dd
aha I TTT IAAA	ACT	TCCA	TTA	222
CTTG1	hinfl GATTC CTAAG	TTCCA'	I ATGTA TACAT	CGACA
TG TC AC AG	11 TC TG AG AC	AC C1	haell GG CC CC GG	AA AA
racct VTGGA	fnu4HI bbv mn GCAGCC CGTCGG	TTCAC AAGTG fok	ACAC	1 AGCC,
ATTI	fr bb GTGC CACC	TAG	mnlleI eI GAGG	mnll dde CCTC/
Lu I SCTTG	TCCT	SGT GG	II dd sgtct caga	GTCT
ddeI al scTcAG	AACTO	hpall mnll hinfl mboll CAGACTCCGG AGAAGAGGCT GGAGTGGGTC GCAACCATTA GTAGTGGTGG GTCTGAGGCC TCTTCTCCGA CCTCACCCAG CGTTGGTAAT CATCACCACC	mn dde I cTGAG	hphI TCACC
993	CTG /	TTA (CAG T	mnli ddel AccTCA G
AACTT TTGAA	rFI sau96 mnli oRII avaII TGG AGGGTCCC1	AACCA TTGGT	ATGAG TACTC	mn d GAACC CTTGG
A TG	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	ပစ် ပစ	C AA	A AG
11 TCAC6 AGTGC	scrFI ecoRI GCCTGG	TGGGT ACCCA	a I ACCTG TGGAC	ACTGGGGTC TGACCCCAG
96 II min CCCC GGGG	TGGA	GGAG	rs CTGT GACA	ACTG TGAC
sau96 avaII CGGA CC	TTAA	11 GGCT CCGA	CACC	GACT
GAACA	hinfI GGAGTCTGGG GGAGTCTTAA CCTCAGAACT	mnll mboll AGAAGAGC TCTTCTCCG	rsal Gagacaatgc Caagaacacc Ctgtacctg Ctctgttacg Gttcttgtgg gacatggac	AGCGGACTAT GCTATGGACT ACTGGGGT(
CAC T	990	all GG A	5 5 5 7 8 8	'AT G
hinfl GAGTCAGCAC CTCAGTCGTG	hinfl GGAGTCTGGG CCTCAGACCC	hpall hinfl AGACTCCGG AGA ITCTGAGGCC TC1	ACAA1 TGTT/	AGCGGACTAT TGCCTGATA
hinfl GAGTC CTCAG	h 1 GGA	cAG GTC	GAG	AGC TCG
	101	201	301	. 401
-		8	m	4

APPROVED Эγ. DRAFTSMAN

APPLN. FILING DATE: JUNE 10, 1988
TITLE RECOMBINANT IMMUNOGLOBULIN
PREPARATIONS
INVENTOR(S): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419
SHIP

SHEET 6 of 19

			<u> </u>	
xholl sau3A dpnl bamHl GGATCC CTGTCCAGCG	sau96 mnll haeIII CTGTCCCTC CAGCCTCGG CCCAGCGAGA CCGTCACCTG GACAGGGGAG GTCGGAGGC GGGTCGCTCT GGCAGTGGAC	AGTCCC AGAAGTATCA TCAGGG TCTTCATAGT	sau3A dpnI mnlI fokI avaI CATCAGCAAG GATGATCCCG GTAGTCGTTC CTACTAGGGC	smal scrFI scrFI ncil ddel hpall alul hgal aval mnll CACAGCTCAG ACGCAACCCC GGGAGGAGCA GTTCAACAGC ACTTTCCGCT CAGTCAGTGA
CTCT	sau96 haeIII GG CCCA	rsal GTAC	CATC GTAG	ACTT
scrFI ecoRII TGACCTGGAA ACTGGACCTT	sa mnll ha CAGCCCTCGG	ndel rsal TGGTTGTAAG CCTTGCATAT GTACAGTCCC ACCAACATTC GGAACGTATA CATGTCAGGG	accI TTGTGGTAGA (AACACCATCT (GTTCAACAGC
xholi sau3A sau3A dpni ecoRII bamHI CCAGTGACAG TGACCTGGAA CTCTGGATCC	mnlI CTGTCCCCTC GACAGGGGAG	TGGTTGTAAG ACCAACATTC	mstII hinfI ddeI GACTCCTAAG GTCACGTGTG CTGAGGATTC CAGTGCACAC	imal scrFI icrFI nciI hpalI hpalI iCCGGAGGAGCA
fokI I scrFI ecoRII GGATGCCTGG TCAAGGGCTA TTTCCCTGAG CCTACGGACC AGTTCCCGAT AAAGGGACTC	fnu4HI bbv ddeI ddeI aluI CACTCTGAGC AGCTCAGTGA GTGAGACTCG TCGAGTCATGA	scrFI ecoRII CCAGGGATTG GGTCCCTAAC	mstII hinfI ddeI GACTCCTAAG	smal scrFI scrFI nciI hpall gal aval ACGCAACCC GC
I TCAAGGGCTA AGTTCCCGAT	fnu4 bbv ddel a CACTCTGAGC A GTGAGACTCG T	AAAATTGTGC TTTTAACACG	I CCATTACTCT GGTAATGAGA	ddel alul h cACAGCTCA GTGTCGAGTC
I fokI II scrFI ECORI GGATGCCTGG	mnli CTGACCTCTA GACTGGAGAT	GGTGGACAAG CCACCTGTTC	hphI TCTTCCCCCC AAAGCCCAAG GATGTGCTCA CCATTACTCT AGAAGGGGGG TTTCGGGTTC CTACACGAGT GGTAATGAGA	mnlI hgiA TGGAGGTGCA ACCTCCACGT
scrF sfaNI hphI ecoR bstEII GGTGACCCTG	I Deti T GTCCTGCAGT A CAGGACGTCA	I fnu4HI bbv GCAGCACCAA CGTCGTGGTT	AAAGCCCAAG	pvull alul Gagtggtti gtagatgatg Gtggaccaaa catctactac
nco CTAACTCCA GATTGAGGT	pvuI alu cTTCCCAGC GAAGGGTCG	scrFI haeIII ncil f bgli hpaII bi CAACGTTGCC CACCCGGCCA G	mboll TCTTCCCCC AGAAGGGGGG	pvull alul cagctegttt
fnu4HI bbv GCTGCCCAAA CGACGGGTTT	hgiA GTGTGCACAC CACACGTGTG	CAACGTTGCC GTTGCAACGG	mboli TCTGTCTTCA AGACAGAAGT	sau96 avali AGGTCCAGTT
501	601	701	801	901

APPROVED O.G. FIG. ΒÝ DRAFTSMAN

APPLN. FILING DATE: JUNE 10, 1988

TITLE: COMBINANT IMMUNOGLOBULIN PREPARATIONS
INVENTOR(S): CABILLY ET AL.

APPLICATION SERIAL NO: 07/205,419



SHEET 7 of 19

1001	SCFI CGAGGGAG TTCCCATC ATGCACCAGG ACTGGCTCAA TGGCAAGGAG TTCAAATGCA GGGTCAACAG TGAAGGGTAG TACGTGGTCC TGACCGAGTT ACCGTTCCTC AAGTTTACGT CCCAGTTGTC TGAAGGGAG TACGTGGTCC TGACCGAGTT ACCGTTCCTC AAGTTTACGT CCCAGTTGTC ACCAAAGGCA GACCGAAGGC TCCACAGGTG TACACCATTC CACCTCCCAA GGAGCAGATA TGGTTTCCGT CTGGCTTCCG AGGTGTCCAC ATGTGGTAAG GTGAGGGTT CCTCGTCTAC TCTTCCCTGA AGACATTACT GTGAGTGGC AGTGGAATGG GCAGCCAGCA AGAAGGACT TCTGTAATGA CACCTCACCG TCACCTTACC CGTCGGTCGC CTCTTGATGT AGAAGGACT TCTGTAATGA CACCTCACCG TCACCTTACC CGTCGGTCGC CTCTTGATGT CGTCTACAGC AAGCTCAATG TGCAGAAGAG CAACTGGGAG GCAGGAAATA CTTTCACCTG GCAGATGTCC TTCGAGTTAC ACGTCTTTCTC GTTGACCTC CGTCGGTCCTC AAGAGCCTCT CCCACTCTC TGTAAATGA TCCCAGTGTC CTTGAGCC TCTGGTCCTA AAGAGCCTCT CCCACTCTC TGGTAAATGA TCCCAGTGTC CTTGGAGCC TCTGGTCCTA AAGAGCCTCT CCCACTTTCC TGGTAAATGA TCCCAGTGTC CTTGGAGCCTTA TTCTCGGAGA GGGTGAAGGA ACCGTCACAGGAACCTCGGC AGACCAGGATA TTCTCGGAGA GGGTGAAGGA ACCGTCACAGG GAACCTCGGC AGACCAGGATA TTCTCGGAGA GGGTGAAGGA ACCGTCACAGGAACCTCGGC AGACCAGGATA TTCTCGGAGA GGGTGAAGGA ACCGTCACAGGATA TCCCAGGATA TTCTCGGAGA GGGTGAAGGA ACCGTCACAGGAACAGG GAACCTCGGC AGACCAGGATA TTCTCGGAGA GGGTGAAGGA ACCGTCACTTACT AGGGTCACAGG GAACCTCGGC AGACCAGGATA TTCTCGGAGA GGGTGAAGGA ACCGTCACAGG GAACCTCGGC AGACCAGGATA TTCTCGGAGA GGGTCACTTCC TGGTCACAGG GAACCTCGGC AGACCAGGATA TTCTCCGACACTCTCC TGGTAATGATTACT AGGGTCACAG GAACCAGGGATA TCTCCGACACTCACCTCTCC TGGTCACTCTCC CTCCTCTCACCAGCATATACTTACTCTCGACACAGGAACTATTACT AGGGTCACAGGATA TCTTCCACTCACTCTCTCC TGGTCACAGG GAACCTCGGCACACTTACTCTCACTCACAGCACAG	Thuahli bbv alu1 TGCAGCTTTC CCTGCCCCCA TCGAGAAAC CATCTCCAAA ACGTCGAAAG GGACGGGGT AGCTCTTTTG GTAGAGGTTT selii GCCAAGGATA AAGTCAGTCT GACCTGCATG ATAACAGACT CGGTTCCTAT TTCAGTCAG CTGGACGTAC TATTGTCTG AGAACACTCA GCCCATCATG AACACGAATG GCTCTTACTT TCTTGTGAGT CGGGTAGTAC TTGTGTTTACTT TCTTGTGAGT CGGGTAGTAC TTGTGCTTAC AGAACACCCCATCATG AACACGAATG GCTCTTACTT TCTTGTGAGT CGGGTAGTAC TGTGCTTAC Addel Addel CTCTGTGTTA CATGAGGGC TGCACAACCA CCATACTGAG GAGACACAAT GTACTCCCGG ACGTGTTGAAT GTCCTGAGAC TGTGGATGGA GGTGGGGGGGGGGGGGGG	TEGAGAAAC CATCTCCAAA AGCTCTTTTG GTAGAGGTTT GACCTGCATG ATAACAGACT CTGGACGTAC TATTGTCTGA AACACGAATG GCTCTTACTT TTGTGCTTAC CGAGAATGAA I dde I TGCACAACCA CCATACTGAG ACGTTGGT GGTATGAGT CCACCCCCCCCCCCCCCCCCCCCCCCCCCC
1501	TTCTCGGAGA GGGTGAGAGG ACCATTTACT AGGGTCACAG GAACCTCGGG AGACCAGGAT AAAGCACCCA GCACTGCCTT GGGAAAAA TTTCGTGGGT CGTGAGGAA CCCTTTTT	GTCCTGAGAC TGTGGATGGA GGTGGGGAGG	G GACATATTA

APPROVED O.G. FIG. БÝ DRAFTSMAN

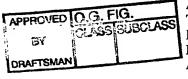
APPLN. FILING DATE: JUNE 10, 1988 TIT RECOMBINANT IMMUNOGLOBUL PRARATIONS

INVENTOR(S): CABILLY ET AL.

APPLICATION SERIAL No: 07/205,419

SHEET 8 of 19

1 glu GAA	arg AGA	ser UCC	thr ACG	val GUC	leu CUG	gln CAG	ala GCC	phe
cy s ugu		60 Pro CCA		120 thr ACC		180 1eu CUG		240 val GUC
gln CAG	phe UUC	leu Cuu	g]u GAG	val GUC	91y 66A	val GUC	his	ser UCU
val GUC	thr ACU		ser ucu				ala GCC	ser UCA
val GUU	phe UUC	ser UCA	arg AGG	thr	thr	CCA	val GUU	val GUA
1ys AAA	9 1 y GGA	ser AGU	leu CUG	91y GGA	val GUG	phe	asn AAC	g]u GAA
leu UUA	ser UCU	91y 660	ser AGU	gln CAA	met AUG	thr	cys UGC	
val GUU	ala GCC	g]y GGU						
leu CUG	ala GCA	ser AGU			ASD			
val GUC	cys UGU	ser AGU	gln CAA	tyr UAC	thr ACU	91y 66U	thr Acc	cy s UGU
-10 leu CUU	se. UCC	11e Auu	leu CUG	a s b G A C	gln CAA	ser AGC	g]u GAG	11e AUA
ty r UAC	20 1eu CUC	50 thr Acc	80 tyr UAC	110 met AUG	140 ala GCC	170 ser UCC	200 ser AGC	230 cy s ugc
ile Auu	1ys AAA	ala GCA	leu CUG	ala GCU	ala GCU	leu CUG	019	pro CCU
leu UUG	Jeu CUG	val Guc		tyr UAU				lys AAG
ser	ser UCC	trp UGG	asn AAC	asp GAC	9	91y GGA	pro	
leu CUC	91y 666	g J u G A G				ser ucu		
91y 666	91y 66A	leu CUG			ala GCC	asn AAC	ser	
phe UUC	pro CCU	arg AGG						
a s n A A C	g]u GAG						val GUC	
met AUG	met AUG		arg AGA					പഠ
CACG	leu UUA	019 000	ser UCC	leu CUU	val GUC	thr ACA	va] GUG	va] GUG
GAGUCAGCACUGAACACGGACCCCUCACG	10 val GUC	40 thr ACU	70 11e AUC	100 Pro CCU	130 ser UCU	160 val GUG	190 ser UCA	220 11e AUU
GGAC	91y 66A	gln CAG	thr	010	Pro	Pro	ser AGC	lys lys AAG AAA
ACAC	91y 666	arg CGC	phe UUC	arg AGA	970 000	g 1 u G A G	ser AGC	lys AAG
CUGA	ser UCU	val GUU	arg CGA	ala GCA	thr	pro CCU	leu CUG	a S P GAC
AGCA	g GAG	trp UGG	glu gly arg g GAA GGG CGA U	cy s ugu	lys thr AAA ACG	tyr phe UAU UUC	thr ACU	thr lys val a
AGUC	val GUG	ser UCU	g1u GAA	tyr UAC	1ys AAA	tyr UAU	tyr UAC	1ys AAG
G	leu CUG	met AUG	cys UGU	tyr UAU	ala GCC	91y 66c	leu	thr
	met AUG	ala GCC	gln CAG	met AUG	ser UCA	1ys AAG	a s p G A C	ser AGC
•	val GUG	tyr UAU	ACA	ala GCC	ser UCC	val GUC	ser UCU	ser AGC



APPLN. FILING DATE: JUNE 10, 1988
TITLE: COMBINANT IMMUNOGLOBULIN
PREPARATIONS
INVENTOR(S): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419
SHIP



SHEET 9 of 19

010	arg CGC	010	a s p G A U	tyr UAC	asn AAU	ກວວກ	
270 asp GAU	300 phe UUC	330 ala GCC	360 1ys AAG	390 asn AAC	420 91y 66A	ucccaguguccu	
asp GAU	thr ACU	pro	ala GCC	glu GAG	ala GCA		
lys AAG	ser AGC	phe UUC	met AUG	2.0 2.0 3.0 6.0	glu GAG	OP UGA	
e c	asn AAC	ala GCU	gln CAG	Pro	trp UGG	447 7 198 U AAA	
ile AUC	p he UUC	ala GCA	g]u GAG	gln CAG	asn AAC	91y 66U	
val asp ile s GUA GAC AUC A	glu glu gln phe GAG GAG CAG UUC	asn ser ala ala p AAC AGU GCA GCU U	pro lys glu gln n ccc AAG GAG CAG /	n gly gln pro J GGG CAG CCA	ser asm trp AGC AAC UGG	pro gly	
val GUA	g]u GAG	asn AAC	9 r o	asn AAU	lys AAG	ser UCU	
val GUG	glu GAG	va] GUC	200	trp UGG	gln CAG	his	AA
val	arg CGG	arg AGG	pro CCA	gln CAG	val GUG	ser his UCC CAC	GAAA
cy s UGU	0 0 0 0	cys UGC	ile AUU	380 glu trp gln s GAG UGG CAG	asn val gln lys : AAU GUG CAG AAG /	Jeu	0000
260 thr ACG	0 4	320 1ys AAA	350 thr ACC	380 91u GAG	410 r lys leu a c AAG CUC.A	440 ser AGC	00900
val GUC	thr ACG	p he uuc	tyr UAC	va] GUG	1ys AAG	glu lys GAG AAG	1GCA(
1ys AAG	gln CAG	glu GAG	val GUG	thr ACU	ser AGC	6A	70001
pro lys c	ala gln GCU CAG	32 eu asn gly lys glu phe ly UC AAU GGC AAG GAG UUC AA	gln CAG	ile Auu	tyr UAC	thr ACU	AAGC/
thr ACU	his thr CAC ACA	91y 660	ala pro GCU CCA	asp GAC	val GUC	his his CAC CAU	AAUA/
ile thr leu thr AUU ACU CUG ACU	his CAC	asn AAU	ala GCU	glu GAA	phe UUC	his	JAUA/
thr	> 🗷	– ပ	⊢ ∀	pro CCU	tyr UAC	a s n A A C	าอกวร
ile AUU	glu GAG	trp UGG	pro 000	phe UUC	ser UCU	leu his CUG CAC	SCUC
thr	va1 GUG	asp GAC	arg AGA	phe UUC	91y 660	leu CUG	CACC
Jeu CUC	a s p G A U	gln CAG	91y 66c	asp GAC	asn AAU	91y 660	SCUC
250 val GUG	280 a s p G A U	310 h1s CAC	340 1ys AAA	370 thr ACA	400 thr ACG	430 91u 6AG	CCUA
asp GAU	val GUA	met AUG	lys thr AAA ACC	met ile AUG AUA	asn AAC	ser val leu his UCU GUG UUA CAU	GACA
1ys AAG	p he UUU	ile AUC	1ys AAA	met AUG	met AUG	leu UUA	CUCU
pro lys a	trp UGG	0 0 0 0	ser UCC	cys UGC	ile AUC	va] GUG	AGGA
1 y s A A G	ser AGC	glu leu GAA CUU	ile AUC	thr	9 ro	ser UCU	CUAC
oro A	phe UUC	glu GAA	thr	leu CUG	gln CAG	cys UGC	2099
010	gln CAG	ser AGU	glu lys GAG AAA	ser AGU	asn thr AAC ACU	thr	ກວກວ
p he uuc	val GUC	val GUC	91u 6AG	val GUC	asn AAC	phe	UGGAGCCCUCUGGUCCUACAGGACUCUGACACCUACCUCCACCCCUCCUGUAUAAAUAA
11e AUC	g 1 u G A G	ser UCA	11e AUC	lys AAA	1 y s A A G	thr ACU	UGG

INVENTOR(S): CABILLY ET AL. **APPLICATION SERIAL NO: 07/205,419 SHEET 10 of 19** Xbal EcoRI EcoRI 画 BamHi Psti Hpall Pstl Sau3A BamHi pHGH **Aval** Avall Sall p x17G4 Ap^R 207-1* Ava II Aval Pstl ApS Pst I, Ava II Isolate 333 bp fragment Anneal primer 5'pATGGACAT TGTGATG Klenow Pol I + 4 dNTP's EcoRI Klenow Pol I + 4dNTP's BamHI Isolate large vector Sou3A Isolate IBObp fragment 5'ATG TAC fragment Sau3A T4 DNA ligase Hpall Sou 3A Sall Pst I Isolate kappa fragment Pstl Ava II partial p & CEAInti Klenow Pol I + 4 dNTP's Hpa II Isolate 490 bp fragment ApR Ava I Ava I, Xba I Isolate I240bp Klenow Poll + 4dNTP's Xbo I BAP fragment Hpall Isolate large vector Isolate 169 bp Xba I, Hpa II fragment fragment T4 DNA ligase Xbal Hpall EcoRi BamHI TIPE DE LA CONTRACTION DEL CONTRACTION DE LA CON Sall Avall Psti Psti TcR pBR322 pxCEAInt2 (XAP) ApR Apf Avg I **EcoRI** Ava I Klenow Pol I + 4 dNTP's Klenow Pol I + 4 dNTP's Pst I Pstl Isolate KCEA Isolate large vector fragment fragment T4 DNA ligase X bal Hpall Avall Pst1 PACEA EcoRI trp207-1* $\Delta \rho^R$ BomHI (XAP) Sali

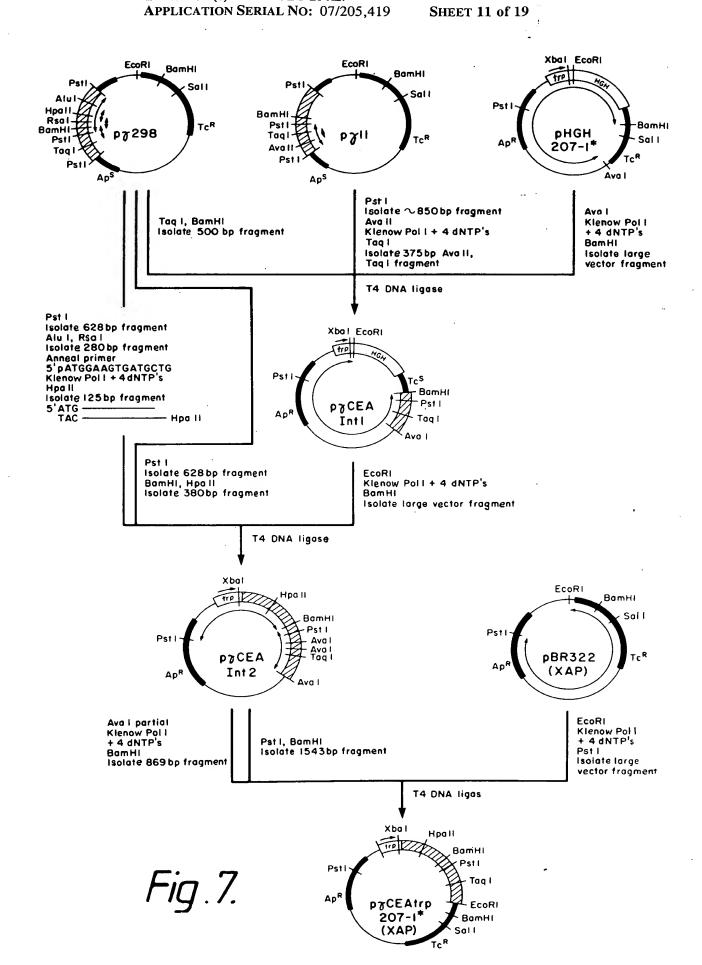
APPLN. FILING DATE: JUNE 10, 1988

RECOMBINANT IMMUNOGLOBULI

TITI

PREARATIONS

APPLN. FILING DATE: JUNE 10, 1988
TITY: RECOMBINANT IMMUNOGLOBULE
PROPERTY OF THE PROPERTY OF



APPROVED O.G. FIG.

BY CLASS SUBCLASS

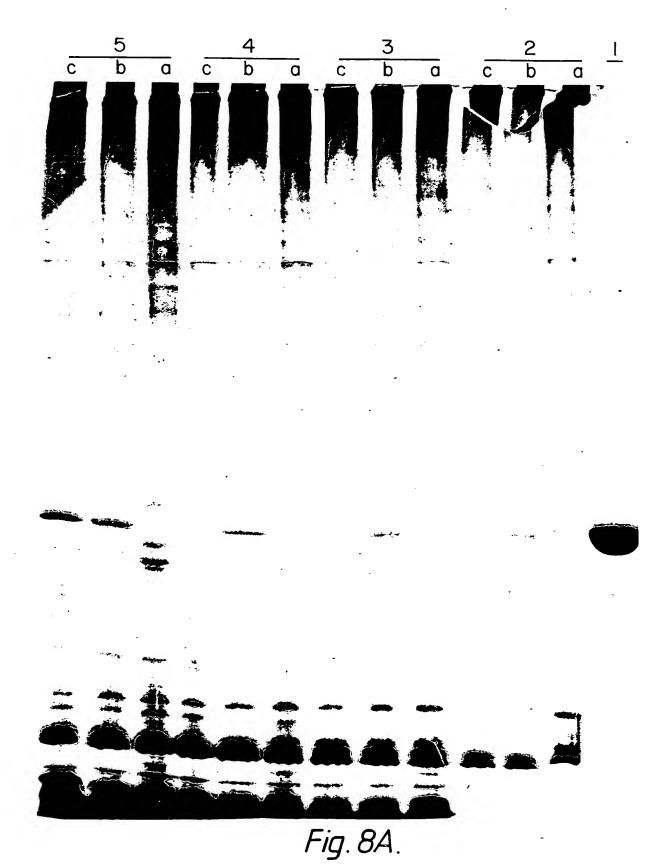
DRAFTSMAN

APPLN. FILING DATE: JUNE 10, 1988
TITLE RECOMBINANT IMMUNOGLOBULING PRESERVATIONS

INVENTOR(S): CABILLY ET AL.

APPLICATION SERIAL No: 07/205,419

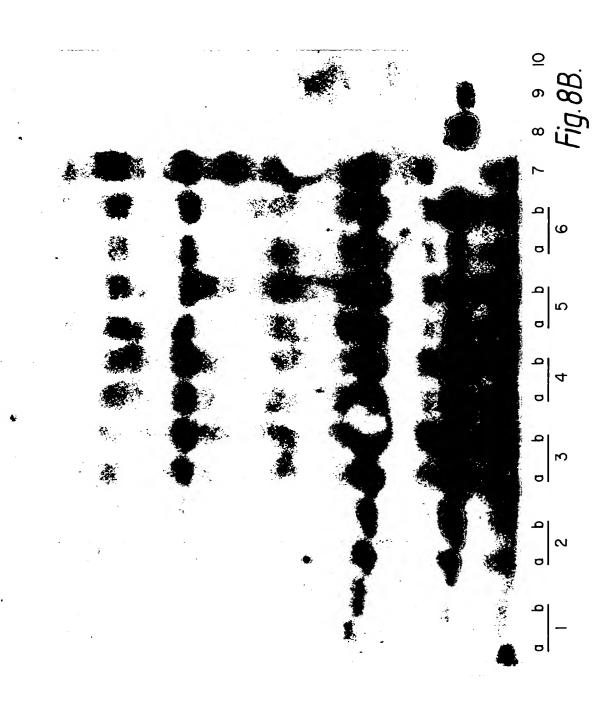
SHEET 12 of 19



APPROVED O G. FIG. 3¥ DRAFTSMAN

APPLN. FILING DATE: JUNE 10, 1988
TITE: RECOMBINANT IMMUNOGLOBUL
PREARATIONS
INVENTOR(s): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419
SH

SHEET 13 of 19



APPLN. FILING DATE: JUNE 10, 1988
TITLE RECOMBINANT IMMUNOGLOBULIN
PRESEATIONS
INVENTOR(S): CABILLY ET AL.
APPLICATION SERIAL NO: 07/205,419
SHE

APPROVED O.G. FIG.

DRAFTSMAN

SHEET 14 of 19



2 5 6 8 9 Fig.8C.

APPEN. FILING DATE: JUNE 10, 1988

APPENDED TO BE FIG.

FITTLE: PECOMBINANT IMMUNOGLOBULIN

PREPATIONS

INVENTOR(S): CABILLY ET AL.

APPLICATION SERIAL NO: 07/205,419

SHEET 15 of 19

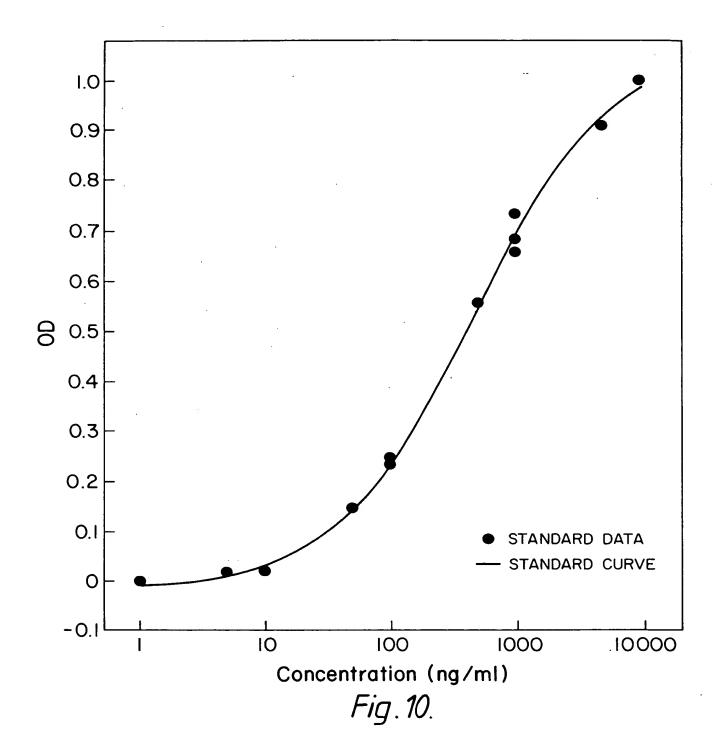
30ng 70ng 0.10µg anti-CEA 0.30µg anti-CEA 1.00µg anti-CEA κ cells (10µl) κ_{γ} cells (20µl) κ_{γ} cells (20µl) κ_{γ} cells (20µl) κ_{γ} cells (20µl)



APPLN. FILING DATE: JUNE 10, 1988 RECOMBINANT IMMUNOGLOBU

INVENTOR(S): CABILLY *ET AL*.

APPLICATION SERIAL NO: 07/205,419 **SHEET 16 of 19**



APPROVED O.G. FIG.

CLASS SUBCLASS

DRAFTSMAN

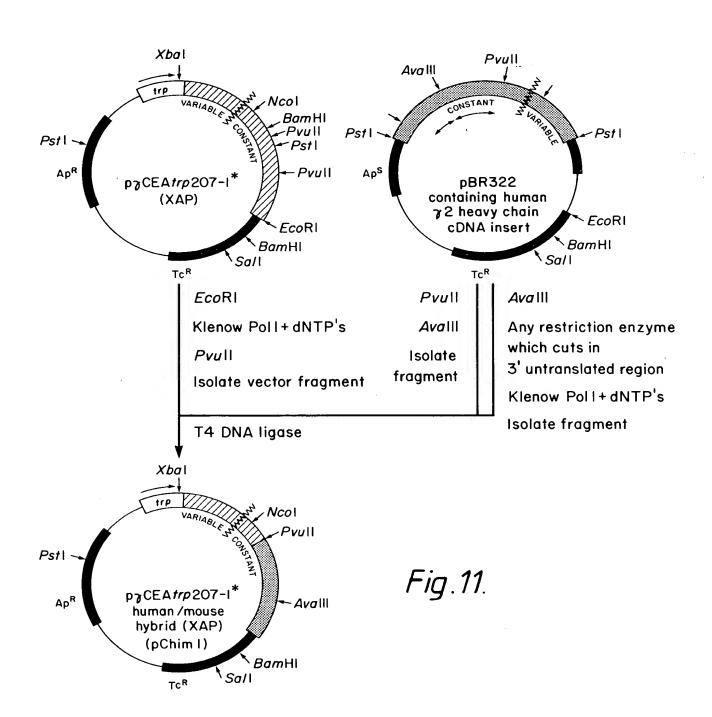
APPLN. FILING DATE: JUNE 10, 1988

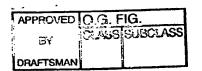
TITE: RECOMBINANT IMMUNOGLOBUL PR. ARATIONS

INVENTOR(S): CABILLY ET AL.

APPLICATION SERIAL NO: 07/205,419

SHEET 17 of 19





APPLN. FILING DATE: JUNE 10, 1988
TYPE: RECOMBINANT IMMUNOGLOBU
PROPRED ARATIONS

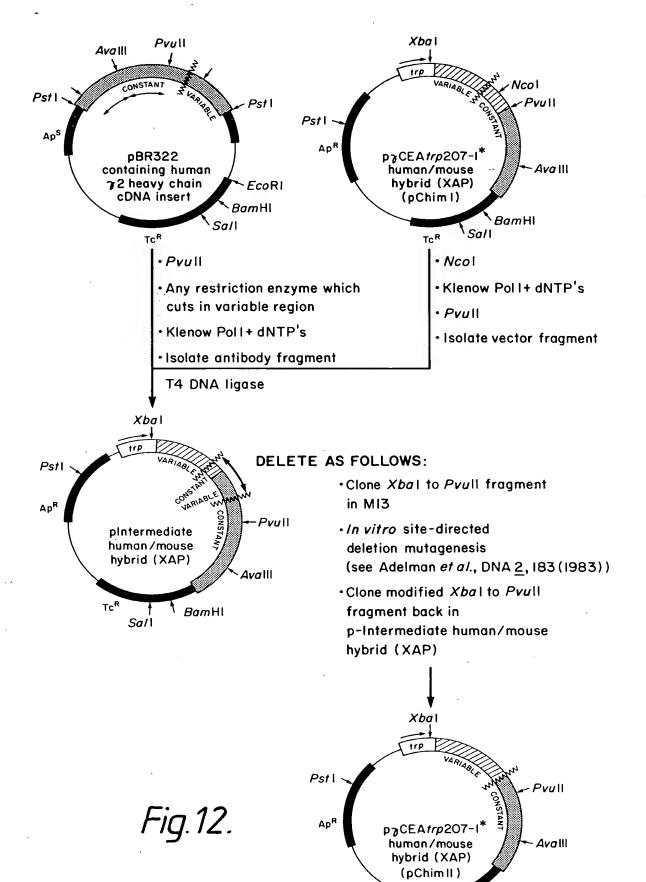
INVENTOR(S): CABILLY ET AL.

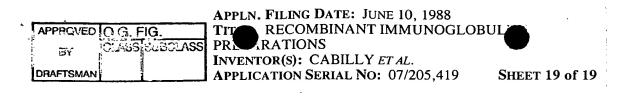
APPLICATION SERIAL NO: 07/205,419

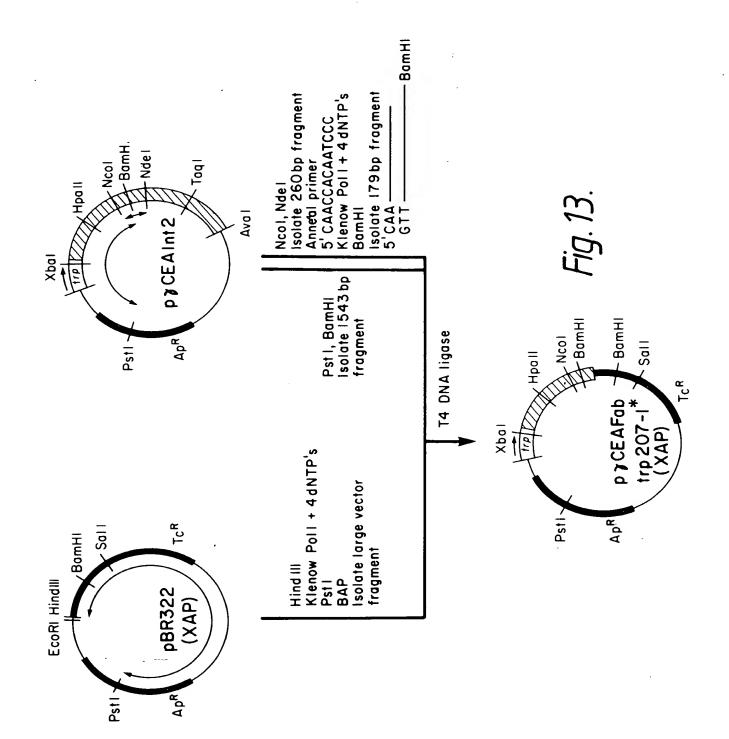
SHEET 18 of 19

BamHI

Sall







1/1